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November 28, 2016

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: **Duke Energy Progress, LLC – Monthly Power Plant Performance
Report
Docket No. 2006-224-E**

Dear Mrs. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of October 2016.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rebecca Dulin", written in a cursive style.

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Shannon Bowyer Hudson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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Period: October, 2016

| Station | Unit | Date of Outage | Duration of Outage | Scheduled / Unscheduled | Cause of Outage | Reason Outage Occurred | Remedial Action Taken |
|------------------|-------------|--------------------------------|---------------------------|--------------------------------|--|--|---|
| Brunswick | 1 | None | | | | | |
| | 2 | None | | | | | |
| Harris | 1 | 10/08/2016 - 11/01/2016 | 574.25 | Scheduled | End-of-cycle 20 refueling outage | Refuel and maintenance | In progress - planned refueling |
| Robinson | 2 | 10/08/2016 - 10/10/2016 | 56.50 | Unscheduled | Unit tripped due to grid disturbance on Rockingham 230 transmission line during Hurricane Matthew | Grid disturbance caused 4KV undervoltage and reactor trip | Grid restored and plant started-up |

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Lee Energy Complex

| Unit | Duration of Outage | Type of Outage | Cause of Outage | | Reason Outage Occurred | Remedial Action Taken |
|-------------|--|-----------------------|------------------------|----------------------------------|--|------------------------------|
| 1A | 10/1/2016 12:48:00 AM To 11/6/2016 11:27:00 AM | Sch | 5270 | Gas Turbine - Hot End Inspection | Hot gas path inspection | |
| 1B | 10/29/2016 12:00:00 AM To 11/1/2016 12:00:00 AM | Sch | 5270 | Gas Turbine - Hot End Inspection | Hot gas path inspection | |
| 1C | 10/29/2016 12:00:00 AM To 11/1/2016 12:00:00 AM | Sch | 5270 | Gas Turbine - Hot End Inspection | Hot gas path inspection | |
| ST1 | 10/12/2016 4:10:00 PM To 10/29/2016 12:00:00 AM | Unsch | 9000 | Flood | Cooling Lake Dam breach caused by flooding after Hurricane Matthew | |
| ST1 | 10/29/2016 12:00:00 AM To 11/1/2016 12:00:00 AM | Sch | 4260 | Turbine Main Stop Valves | Turbine Steam Valve Inspections | |

Mayo Station

| Unit | Duration of Outage | Type of Outage | Cause of Outage | | Reason Outage Occurred | Remedial Action Taken |
|-------------|--|-----------------------|------------------------|--|---|------------------------------|
| 1 | 10/1/2016 12:00:00 AM To 10/16/2016 8:00:00 AM | Sch | 4261 | Turbine Control Valves | Repair broken #3 Governor Valve on Main Turbine | |
| 1 | 10/16/2016 8:00:00 AM To 10/22/2016 12:43:00 AM | Sch | 9300 | Transmission System Problems Other Than Catastroph | Transmission reliability project | |
| 1 | 10/27/2016 2:35:00 AM To 10/27/2016 7:23:00 AM | Unsch | 3149 | Condenser Loss of Vacuum | Unit tripped to loss of condenser vacuum. Suspect faulty indication as the cause. | |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Richmond County Station

| Unit | Duration of Outage | Type of Outage | Cause of Outage | | Reason Outage Occurred | Remedial Action Taken |
|-------------|--|-----------------------|------------------------|---|--|------------------------------|
| 7 | 9/10/2016 3:56:00 AM To 11/1/2016 12:00:00 AM | Sch | 5274 | General Gas Turbine Unit Inspection | U7 Outage for boroscope and generator rotor pull | |
| 8 | 9/10/2016 3:56:00 AM To 11/1/2016 12:00:00 AM | Sch | 5272 | Gas Turbine - Boroscope Inspection | U8 / PB4 outage Boroscope | |
| ST4 | 9/10/2016 3:40:00 AM To 11/1/2016 12:00:00 AM | Sch | 4400 | Major Turbine Overhaul (720 Hours Or Longer) | PB4 block outage | |
| 9 | 9/24/2016 4:05:00 AM To 10/16/2016 1:06:00 AM | Sch | 5272 | Gas Turbine - Boroscope Inspection | Boroscope inspection, BOP work | |
| 9 | 10/21/2016 2:57:00 AM To 10/22/2016 7:40:00 PM | Sch | 3230 | Circulating Water Valves | Circ water valve body loose | |
| 10 | 9/24/2016 4:05:00 AM To 10/16/2016 5:07:00 PM | Sch | 5272 | Gas Turbine - Boroscope Inspection | Boroscope inspection, BOP work | |
| 10 | 10/17/2016 6:48:00 AM To 10/18/2016 2:46:00 AM | Sch | 5108 | Gas Turbine - High Engine Exhaust Temperature | Replaced disc cavity thermocouple | |
| 10 | 10/21/2016 2:57:00 AM To 10/22/2016 7:52:00 PM | Sch | 3230 | Circulating Water Valves | Circ water valve body loose | |
| ST5 | 9/25/2016 4:01:00 AM To 10/16/2016 1:06:00 AM | Sch | 4520 | Gen. Stator Windings; Bushings; And Terminals | Changing 1 cracked high bushing | |
| ST5 | 10/21/2016 2:46:00 AM To 10/22/2016 10:34:00 PM | Sch | 3230 | Circulating Water Valves | Circ water valve body loose | |

Roxboro Station

| Unit | Duration of Outage | Type of Outage | Cause of Outage | | Reason Outage Occurred | Remedial Action Taken |
|-------------|--|-----------------------|------------------------|---|---|------------------------------|
| 2 | 10/19/2016 10:30:00 PM To 10/26/2016 3:30:00 PM | Sch | 0741 | Boiler Recirculation Pumps - Motors | Unit Retired to Repair BCWP Seals & HP Heater Tube Leak | |
| 3 | 9/17/2016 2:30:00 AM To 10/3/2016 8:55:00 AM | Sch | 4402 | Minor Turbine Overhaul (less Than 720 Hour) | Planned Outage | |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Sutton Energy Complex

| Unit | Duration of Outage | Type of Outage | Cause of Outage | | Reason Outage Occurred | Remedial Action Taken |
|-------------|---|-----------------------|------------------------|-----------------------------|---|------------------------------|
| 1A | 10/21/2016 5:07:00 AM To 10/21/2016 8:30:00 PM | Sch | 3611 | Switchyard Circuit Breakers | Circuit breaker work in the 115kv Switchyard. GT on-line @ 2030 | |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**October 2016
Brunswick Nuclear Station**

| | <u>Unit 1</u> | <u>Unit 2</u> | | |
|---|----------------|----------------|----------------|----------------|
| (A) MDC (mW) | 938 | 932 | | |
| (B) Period Hours | 744 | 744 | | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 675,819 | 96.84 | 668,028 | 96.34 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 0 | 0.00 | 0 | 0.00 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 0 | 0.00 | 1,336 | 0.19 |
| (F) Net mWh Not Gen due to Full Forced Outages | 0 | 0.00 | 0 | 0.00 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | 22,053 | 3.16 | 24,044 | 3.47 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 | 0 | 0.00 |
| (J) Net mWh Possible in Period | 697,872 | 100.00% | 693,408 | 100.00% |
| (K) Equivalent Availability (%) | | 99.82 | | 99.55 |
| (L) Output Factor (%) | | 96.84 | | 96.34 |
| (M) Heat Rate (BTU/NkWh) | | 10,144 | | 10,334 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**October 2016
Harris Nuclear Station**

Unit 1

| | | |
|---|----------------|----------------|
| (A) MDC (mW) | 928 | |
| (B) Period Hours | 744 | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 136,077 | 19.71 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 532,904 | 77.18 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 21,451 | 3.11 |
| (F) Net mWh Not Gen due to Full Forced Outages | 0 | 0.00 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | 0 | 0.00 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 |
| (J) Net mWh Possible in Period | 690,432 | 100.00% |
| (K) Equivalent Availability (%) | | 22.41 |
| (L) Output Factor (%) | | 86.38 |
| (M) Heat Rate (BTU/NkWh) | | 11,129 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**October 2016
Robinson Nuclear Station**

Unit 2

| | | |
|---|----------------|----------------|
| (A) MDC (mW) | 741 | |
| (B) Period Hours | 744 | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 496,234 | 90.01 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 0 | 0.00 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 0 | 0.00 |
| (F) Net mWh Not Gen due to Full Forced Outages | 41,867 | 7.59 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | 13,203 | 2.40 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 |
| (J) Net mWh Possible in Period | 551,304 | 100.00% |
| (K) Equivalent Availability (%) | | 92.41 |
| (L) Output Factor (%) | | 97.41 |
| (M) Heat Rate (BTU/NkWh) | | 11,147 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Lee Energy Complex

| | Unit 1A | Unit 1B | Unit 1C | Unit ST1 | Block Total |
|--|---------|---------|---------|----------|-------------|
| (A) MDC (mW) | 177 | 176 | 179 | 378 | 910 |
| (B) Period Hrs | 744 | 744 | 744 | 744 | 744 |
| (C) Net Generation (mWh) | -889 | 61,560 | 62,814 | 68,553 | 192,038 |
| (D) Capacity Factor (%) | 0.00 | 47.01 | 47.17 | 24.38 | 28.36 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 131,546 | 12,672 | 12,888 | 27,216 | 184,322 |
| (F) Scheduled Outages: percent of Period Hrs | 99.89 | 9.68 | 9.68 | 9.68 | 27.22 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 0 | 27,657 | 27,657 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 9.83 | 4.09 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 | 0 | 0 | 148,113 | 148,113 |
| (J) Forced Outages: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 52.67 | 21.88 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 0 | 0 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 142 | 56,712 | 57,474 | 9,693 | 124,020 |
| (N) Economic Dispatch: percent of Period Hrs | 0.11 | 43.31 | 43.16 | 3.45 | 18.32 |
| (O) Net mWh Possible in Period | 131,688 | 130,944 | 133,176 | 281,232 | 677,040 |
| (P) Equivalent Availability (%) | 0.11 | 90.32 | 90.32 | 27.82 | 46.81 |
| (Q) Output Factor (%) | 0.00 | 98.23 | 97.28 | 64.73 | 82.32 |
| (R) Heat Rate (BTU/NkWh) | 0 | 8,757 | 8,664 | 5,240 | 7,514 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Richmond County Station

| | Unit 7 | Unit 8 | Unit ST4 | Block Total |
|---|---------|---------|----------|-------------|
| (A) MDC (mW) | 160 | 157 | 165 | 482 |
| (B) Period Hrs | 744 | 744 | 744 | 744 |
| (C) Net Generation (mWh) | -165 | -173 | 0 | -338 |
| (D) Capacity Factor (%) | 0.00 | 0.00 | 0.00 | 0.00 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 119,040 | 116,808 | 122,760 | 358,608 |
| (F) Scheduled Outages: percent of Period Hrs | 100.00 | 100.00 | 100.00 | 100.00 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 0 | 0 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 | 0 | 0 | 0 |
| (J) Forced Outages: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 0 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 0 | 0 | 0 | 0 |
| (N) Economic Dispatch: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (O) Net mWh Possible in Period | 119,040 | 116,808 | 122,760 | 358,608 |
| (P) Equivalent Availability (%) | 0.00 | 0.00 | 0.00 | 0.00 |
| (Q) Output Factor (%) | 0.00 | 0.00 | 0.00 | 0.00 |
| (R) Heat Rate (BTU/NkWh) | 0 | 0 | 0 | 0 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Richmond County Station

| | Unit 9 | Unit 10 | Unit ST5 | Block Total |
|--|---------|---------|----------|-------------|
| (A) MDC (mW) | 178 | 178 | 250 | 606 |
| (B) Period Hrs | 744 | 744 | 744 | 744 |
| (C) Net Generation (mWh) | 54,036 | 50,665 | 71,309 | 176,010 |
| (D) Capacity Factor (%) | 40.80 | 38.26 | 38.34 | 39.04 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 71,523 | 77,964 | 101,225 | 250,712 |
| (F) Scheduled Outages: percent of Period Hrs | 54.01 | 58.87 | 54.42 | 55.61 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 0 | 0 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 | 0 | 0 | 0 |
| (J) Forced Outages: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 0 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 6,873 | 3,803 | 13,466 | 24,142 |
| (N) Economic Dispatch: percent of Period Hrs | 5.19 | 2.87 | 7.24 | 5.35 |
| (O) Net mWh Possible in Period | 132,432 | 132,432 | 186,000 | 450,864 |
| (P) Equivalent Availability (%) | 45.99 | 41.13 | 45.58 | 44.39 |
| (Q) Output Factor (%) | 94.09 | 94.78 | 91.40 | 93.18 |
| (R) Heat Rate (BTU/NkWh) | 11,817 | 11,726 | 0 | 7,003 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Roxboro Station

Unit 2

| | |
|---|---------|
| (A) MDC (mW) | 671 |
| (B) Period Hrs | 744 |
| (C) Net Generation (mWh) | 136,933 |
| (D) Capacity Factor (%) | 27.43 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 108,031 |
| (F) Scheduled Outages: percent of Period Hrs | 21.64 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 358 |
| (H) Scheduled Derates: percent of Period Hrs | 0.07 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 |
| (J) Forced Outages: percent of Period Hrs | 0.00 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 7,579 |
| (L) Forced Derates: percent of Period Hrs | 1.52 |
| (M) Net mWh Not Generated due to Economic Dispatch | 246,324 |
| (N) Economic Dispatch: percent of Period Hrs | 49.34 |
| (O) Net mWh Possible in Period | 499,224 |
| (P) Equivalent Availability (%) | 76.77 |
| (Q) Output Factor (%) | 62.67 |
| (R) Heat Rate (BTU/NkWh) | 10,531 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
October 2016**

Sutton Energy Complex

| | Unit 1A | Unit 1B | Unit ST1 | Block Total |
|--|---------|---------|----------|-------------|
| (A) MDC (mW) | 179 | 179 | 264 | 622 |
| (B) Period Hrs | 744 | 744 | 744 | 744 |
| (C) Net Generation (mWh) | 120,316 | 124,401 | 161,193 | 405,910 |
| (D) Capacity Factor (%) | 90.34 | 93.41 | 82.07 | 87.71 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 2,754 | 0 | 0 | 2,754 |
| (F) Scheduled Outages: percent of Period Hrs | 2.07 | 0.00 | 0.00 | 0.60 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 2,523 | 2,523 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 1.28 | 0.55 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 | 0 | 0 | 0 |
| (J) Forced Outages: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 0 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 10,106 | 8,775 | 32,700 | 51,581 |
| (N) Economic Dispatch: percent of Period Hrs | 7.59 | 6.59 | 16.65 | 11.15 |
| (O) Net mWh Possible in Period | 133,176 | 133,176 | 196,416 | 462,768 |
| (P) Equivalent Availability (%) | 97.93 | 100.00 | 98.72 | 98.86 |
| (Q) Output Factor (%) | 92.25 | 93.41 | 82.07 | 88.24 |
| (R) Heat Rate (BTU/NkWh) | 11,783 | 11,655 | 0 | 7,064 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
October 2016**

Mayo Station

Unit 1

| | |
|--|---------|
| (A) MDC (mW) | 727 |
| (B) Period Hrs | 744 |
| (C) Net Generation (mWh) | 76,788 |
| (D) Net mWh Possible in Period | 540,888 |
| (E) Equivalent Availability (%) | 31.52 |
| (F) Output Factor (%) | 45.05 |
| (G) Capacity Factor (%) | 14.20 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
October 2016**

| | Roxboro Station | |
|--|------------------------|---------------|
| | Unit 3 | Unit 4 |
| (A) MDC (mW) | 691 | 698 |
| (B) Period Hrs | 744 | 744 |
| (C) Net Generation (mWh) | 282,354 | 260,059 |
| (D) Net mWh Possible in Period | 514,104 | 519,312 |
| (E) Equivalent Availability (%) | 89.11 | 97.76 |
| (F) Output Factor (%) | 61.77 | 70.54 |
| (G) Capacity Factor (%) | 54.92 | 50.08 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**November 2015 - October 2016
Brunswick Nuclear Station**

| | <u>Unit 1</u> | <u>Unit 2</u> | | |
|---|------------------|----------------|------------------|----------------|
| (A) MDC (mW) | 938 | 932 | | |
| (B) Period Hours | 8784 | 8784 | | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 7,213,927 | 87.55 | 8,098,953 | 98.93 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 709,034 | 8.61 | 0 | 0.00 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 163,804 | 1.99 | 40,544 | 0.50 |
| (F) Net mWh Not Gen due to Full Forced Outages | 165,979 | 2.01 | 0 | 0.00 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | -13,352 | -0.16 | 47,191 | 0.57 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 | 0 | 0.00 |
| (J) Net mWh Possible in Period | 8,239,392 | 100.00% | 8,186,688 | 100.00% |
| (K) Equivalent Availability (%) | | 87.79 | | 99.44 |
| (L) Output Factor (%) | | 97.96 | | 98.93 |
| (M) Heat Rate (BTU/NkWh) | | 10,282 | | 10,480 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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November 2015 - October 2016
Harris Nuclear Station

Unit 1

| | | |
|---|------------------|----------------|
| (A) MDC (mW) | 928 | |
| (B) Period Hours | 8784 | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 7,770,630 | 95.33 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 532,904 | 6.54 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 25,854 | 0.32 |
| (F) Net mWh Not Gen due to Full Forced Outages | 0 | 0.00 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | -177,836 | -2.19 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 |
| (J) Net mWh Possible in Period | 8,151,552 | 100.00% |
| (K) Equivalent Availability (%) | | 93.29 |
| (L) Output Factor (%) | | 101.99 |
| (M) Heat Rate (BTU/NkWh) | | 10,356 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**November 2015 - October 2016
Robinson Nuclear Station**

Unit 2

| | | |
|---|------------------|----------------|
| (A) MDC (mW) | 741 | |
| (B) Period Hours | 8784 | |
| (C) Net Gen (mWh) and Capacity Factor (%) | 6,211,098 | 95.42 |
| (D) Net mWh Not Gen due to Full Schedule Outages | 367,993 | 5.65 |
| * (E) Net mWh Not Gen due to Partial Scheduled Outages | 8,660 | 0.13 |
| (F) Net mWh Not Gen due to Full Forced Outages | 97,281 | 1.49 |
| * (G) Net mWh Not Gen due to Partial Forced Outages | -176,088 | -2.69 |
| * (H) Net mWh Not Gen due to Economic Dispatch | 0 | 0.00 |
| * (I) Core Conservation | 0 | 0.00 |
| (J) Net mWh Possible in Period | 6,508,944 | 100.00% |
| (K) Equivalent Availability (%) | | 92.46 |
| (L) Output Factor (%) | | 102.77 |
| (M) Heat Rate (BTU/NkWh) | | 10,464 |

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Lee Energy Complex

| | Unit 1A | Unit 1B | Unit 1C | Unit ST1 | Block Total |
|--|-----------|-----------|-----------|-----------|-------------|
| (A) MDC (mW) | 196 | 195 | 197 | 378 | 967 |
| (B) Period Hrs | 8,784 | 8,784 | 8,784 | 8,784 | 8,784 |
| (C) Net Generation (mWh) | 1,256,431 | 1,362,090 | 1,380,801 | 2,503,231 | 6,502,553 |
| (D) Capacity Factor (%) | 72.94 | 79.48 | 79.68 | 75.31 | 76.56 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 196,868 | 94,924 | 78,973 | 293,767 | 664,531 |
| (F) Scheduled Outages: percent of Period Hrs | 11.43 | 5.54 | 4.56 | 8.84 | 7.82 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 0 | 85,063 | 85,063 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 2.56 | 1.00 |
| (I) Net mWh Not Generated due to Full Forced Outages | 34,196 | 317 | 1,534 | 148,113 | 184,160 |
| (J) Forced Outages: percent of Period Hrs | 1.99 | 0.02 | 0.09 | 4.46 | 2.17 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 24,301 | 24,301 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.73 | 0.29 |
| (M) Net mWh Not Generated due to Economic Dispatch | 235,081 | 256,462 | 271,541 | 269,526 | 1,032,609 |
| (N) Economic Dispatch: percent of Period Hrs | 13.65 | 14.96 | 15.67 | 8.11 | 12.16 |
| (O) Net mWh Possible in Period | 1,722,576 | 1,713,792 | 1,732,848 | 3,324,000 | 8,493,216 |
| (P) Equivalent Availability (%) | 85.61 | 94.58 | 95.32 | 83.42 | 88.72 |
| (Q) Output Factor (%) | 87.02 | 88.67 | 88.96 | 86.85 | 87.70 |
| (R) Heat Rate (BTU/NkWh) | 9,388 | 9,382 | 9,235 | 4,061 | 7,303 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Richmond County Station

| | Unit 7 | Unit 8 | Unit ST4 | Block Total |
|--|-----------|-----------|-----------|-------------|
| (A) MDC (mW) | 172 | 170 | 169 | 512 |
| (B) Period Hrs | 8,784 | 8,784 | 8,784 | 8,784 |
| (C) Net Generation (mWh) | 1,094,909 | 1,078,135 | 1,233,646 | 3,406,690 |
| (D) Capacity Factor (%) | 72.45 | 72.08 | 83.03 | 75.82 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 264,933 | 258,736 | 268,568 | 792,237 |
| (F) Scheduled Outages: percent of Period Hrs | 17.53 | 17.30 | 18.08 | 17.63 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 5,594 | 5,594 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.38 | 0.12 |
| (I) Net mWh Not Generated due to Full Forced Outages | 4,351 | 12,134 | 0 | 16,485 |
| (J) Forced Outages: percent of Period Hrs | 0.29 | 0.81 | 0.00 | 0.37 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 3,974 | 3,974 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.27 | 0.09 |
| (M) Net mWh Not Generated due to Economic Dispatch | 147,038 | 146,819 | 0 | 267,917 |
| (N) Economic Dispatch: percent of Period Hrs | 9.73 | 9.82 | 0.00 | 5.96 |
| (O) Net mWh Possible in Period | 1,511,232 | 1,495,824 | 1,485,840 | 4,492,896 |
| (P) Equivalent Availability (%) | 80.84 | 80.42 | 80.81 | 81.79 |
| (Q) Output Factor (%) | 88.25 | 88.87 | 101.35 | 92.80 |
| (R) Heat Rate (BTU/NkWh) | 11,478 | 9,971 | 0 | 6,845 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Richmond County Station

| | Unit 9 | Unit 10 | Unit ST5 | Block Total |
|--|-----------|-----------|-----------|-------------|
| (A) MDC (mW) | 193 | 193 | 248 | 634 |
| (B) Period Hrs | 8,784 | 8,784 | 8,784 | 8,784 |
| (C) Net Generation (mWh) | 1,345,873 | 1,344,433 | 1,752,210 | 4,442,516 |
| (D) Capacity Factor (%) | 79.41 | 79.32 | 80.32 | 79.74 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 174,668 | 183,477 | 283,018 | 641,162 |
| (F) Scheduled Outages: percent of Period Hrs | 10.31 | 10.83 | 12.97 | 11.51 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 0 | 0 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (I) Net mWh Not Generated due to Full Forced Outages | 3,563 | 8,036 | 40,164 | 51,763 |
| (J) Forced Outages: percent of Period Hrs | 0.21 | 0.47 | 1.84 | 0.93 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 0 | 0 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.00 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 170,776 | 158,934 | 106,017 | 435,727 |
| (N) Economic Dispatch: percent of Period Hrs | 10.08 | 9.38 | 4.86 | 7.82 |
| (O) Net mWh Possible in Period | 1,694,880 | 1,694,880 | 2,181,408 | 5,571,168 |
| (P) Equivalent Availability (%) | 89.37 | 88.63 | 85.15 | 87.56 |
| (Q) Output Factor (%) | 92.14 | 92.79 | 95.90 | 93.79 |
| (R) Heat Rate (BTU/NkWh) | 11,514 | 11,422 | 0 | 6,945 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Roxboro Station

Unit 2

| | |
|--|-----------|
| (A) MDC (mW) | 672 |
| (B) Period Hrs | 8,784 |
| (C) Net Generation (mWh) | 2,778,615 |
| (D) Capacity Factor (%) | 47.08 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 722,403 |
| (F) Scheduled Outages: percent of Period Hrs | 12.24 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 2,584 |
| (H) Scheduled Derates: percent of Period Hrs | 0.04 |
| (I) Net mWh Not Generated due to Full Forced Outages | 28,228 |
| (J) Forced Outages: percent of Period Hrs | 0.48 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 7,962 |
| (L) Forced Derates: percent of Period Hrs | 0.13 |
| (M) Net mWh Not Generated due to Economic Dispatch | 2,361,568 |
| (N) Economic Dispatch: percent of Period Hrs | 40.02 |
| (O) Net mWh Possible in Period | 5,901,360 |
| (P) Equivalent Availability (%) | 87.11 |
| (Q) Output Factor (%) | 71.34 |
| (R) Heat Rate (BTU/NkWh) | 10,141 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Sutton Energy Complex

| | Unit 1A | Unit 1B | Unit ST1 | Block Total |
|--|-----------|-----------|-----------|-------------|
| (A) MDC (mW) | 198 | 198 | 265 | 662 |
| (B) Period Hrs | 8,784 | 8,784 | 8,784 | 8,784 |
| (C) Net Generation (mWh) | 1,374,116 | 1,471,318 | 1,758,438 | 4,603,872 |
| (D) Capacity Factor (%) | 78.97 | 84.55 | 75.47 | 79.24 |
| (E) Net mWh Not Generated due to Full Scheduled Outages | 135,875 | 37,835 | 2,578 | 176,288 |
| (F) Scheduled Outages: percent of Period Hrs | 7.81 | 2.17 | 0.11 | 3.03 |
| (G) Net mWh Not Generated due to Partial Scheduled Outages | 0 | 0 | 105,913 | 105,913 |
| (H) Scheduled Derates: percent of Period Hrs | 0.00 | 0.00 | 4.55 | 1.82 |
| (I) Net mWh Not Generated due to Full Forced Outages | 0 | 338 | 0 | 338 |
| (J) Forced Outages: percent of Period Hrs | 0.00 | 0.02 | 0.00 | 0.01 |
| (K) Net mWh Not Generated due to Partial Forced Outages | 0 | 0 | 173 | 173 |
| (L) Forced Derates: percent of Period Hrs | 0.00 | 0.00 | 0.01 | 0.00 |
| (M) Net mWh Not Generated due to Economic Dispatch | 230,153 | 230,653 | 462,818 | 923,625 |
| (N) Economic Dispatch: percent of Period Hrs | 13.23 | 13.25 | 19.86 | 15.90 |
| (O) Net mWh Possible in Period | 1,740,144 | 1,740,144 | 2,329,920 | 5,810,208 |
| (P) Equivalent Availability (%) | 92.83 | 97.87 | 95.35 | 95.13 |
| (Q) Output Factor (%) | 87.49 | 88.28 | 76.90 | 83.35 |
| (R) Heat Rate (BTU/NkWh) | 11,436 | 11,343 | 0 | 7,038 |

Footnote: (R) Includes Light Off BTU's
Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Mayo Station

| Units | Unit 1 |
|---------------------------------|---------------|
| (A) MDC (mW) | 735 |
| (B) Period Hrs | 8,784 |
| (C) Net Generation (mWh) | 1,935,806 |
| (D) Net mWh Possible in Period | 6,455,280 |
| (E) Equivalent Availability (%) | 86.48 |
| (F) Output Factor (%) | 52.09 |
| (G) Capacity Factor (%) | 29.99 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
November, 2015 through October, 2016**

Roxboro Station

| Units | Unit 3 | Unit 4 |
|---------------------------------|---------------|---------------|
| (A) MDC (mW) | 694 | 703 |
| (B) Period Hrs | 8,784 | 8,784 |
| (C) Net Generation (mWh) | 2,096,237 | 2,173,304 |
| (D) Net mWh Possible in Period | 6,095,280 | 6,178,656 |
| (E) Equivalent Availability (%) | 83.56 | 91.35 |
| (F) Output Factor (%) | 64.98 | 71.41 |
| (G) Capacity Factor (%) | 34.39 | 35.17 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
October, 2016

| <u>Unit Name</u> | <u>Capacity Rating (mW)</u> | <u>Full Outage Hours</u> | | <u>Total</u> |
|----------------------|---------------------------------|--------------------------|--------------------|--------------|
| | | <u>Scheduled</u> | <u>Unscheduled</u> | |
| Brunswick 1 | 938 | 0.00 | 0.00 | 0.00 |
| Brunswick 2 | 932 | 0.00 | 0.00 | 0.00 |
| | | | | |
| Harris 1 | 928 | 574.25 | 0.00 | 574.25 |
| | | | | |
| Robinson 2 | 741 | 0.00 | 0.00 | 0.00 |
| | | | | |

Duke Energy Progress
Outages for 100 mW or Larger Units
October 2016

| Unit Name | Capacity Rating (mW) | Full Outage Hours | | Total Outage Hours |
|---------------------------|-------------------------|-------------------|-------------|-----------------------|
| | | Scheduled | Unscheduled | |
| Asheville Steam 1 | 189 | 0.00 | 0.00 | 0.00 |
| Asheville Steam 2 | 189 | 744.00 | 0.00 | 744.00 |
| Asheville CT 3 | 164 | 744.00 | 0.00 | 744.00 |
| Asheville CT 4 | 160 | 0.00 | 0.00 | 0.00 |
| Darlington CT 12 | 118 | 126.32 | 0.00 | 126.32 |
| Darlington CT 13 | 116 | 80.92 | 0.00 | 80.92 |
| Lee Energy Complex CC 1A | 177 | 743.20 | 0.00 | 743.20 |
| Lee Energy Complex CC 1B | 176 | 72.00 | 0.00 | 72.00 |
| Lee Energy Complex CC 1C | 179 | 72.00 | 0.00 | 72.00 |
| Lee Energy Complex CC ST1 | 378 | 72.00 | 391.83 | 463.83 |
| Mayo Steam 1 | 727 | 504.72 | 4.80 | 509.52 |
| Richmond County CC 1 | 157 | 0.00 | 7.70 | 7.70 |
| Richmond County CC 2 | 156 | 254.85 | 0.00 | 254.85 |
| Richmond County CC 3 | 155 | 0.00 | 0.00 | 0.00 |
| Richmond County CC 4 | 159 | 0.00 | 14.15 | 14.15 |
| Richmond County CC 6 | 153 | 0.00 | 9.90 | 9.90 |
| Richmond County CC 7 | 160 | 744.00 | 0.00 | 744.00 |
| Richmond County CC 8 | 157 | 744.00 | 0.00 | 744.00 |
| Richmond County CC ST4 | 165 | 744.00 | 0.00 | 744.00 |
| Richmond County CC 9 | 178 | 401.82 | 0.00 | 401.82 |
| Richmond County CC 10 | 178 | 438.00 | 0.00 | 438.00 |
| Richmond County CC ST5 | 250 | 404.90 | 0.00 | 404.90 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
October 2016

| Unit Name | Capacity Rating (mW) | Full Outage Hours | | Total Outage Hours |
|------------------------------|-------------------------|-------------------|-------------|-----------------------|
| | | Scheduled | Unscheduled | |
| Roxboro Steam 1 | 379 | 0.00 | 3.62 | 3.62 |
| Roxboro Steam 2 | 671 | 161.00 | 0.00 | 161.00 |
| Roxboro Steam 3 | 691 | 56.92 | 0.00 | 56.92 |
| Roxboro Steam 4 | 698 | 0.00 | 0.00 | 0.00 |
| Sutton Energy Complex CC 1A | 179 | 15.38 | 0.00 | 15.38 |
| Sutton Energy Complex CC 1B | 179 | 0.00 | 0.00 | 0.00 |
| Sutton Energy Complex CC ST1 | 264 | 0.00 | 0.00 | 0.00 |
| Wayne County CT 10 | 177 | 0.00 | 0.00 | 0.00 |
| Wayne County CT 11 | 174 | 0.00 | 0.00 | 0.00 |
| Wayne County CT 12 | 173 | 0.00 | 0.00 | 0.00 |
| Wayne County CT 13 | 170 | 0.00 | 0.00 | 0.00 |
| Wayne County CT 14 | 169 | 0.00 | 0.00 | 0.00 |

Units in commercial operation for the full month are presented.
Pre-commercial or partial month commercial operations are not included.